



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/669,463

09/25/2003

Terry J. Logan

NVI 0016 PA/37249.27

4567

23368 7590 10/17/2008

DINSMORE & SHOHL LLP
ONE DAYTON CENTRE, ONE SOUTH MAIN STREET
SUITE 1300
DAYTON, OH 45402-2023

EXAMINER

MARCANTONI, PAUL D

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

10/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/669,463	Applicant(s) LOGAN ET AL.	
	Examiner Paul Marcantoni	Art Unit 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4-9 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

The applicants' 9/1/9/08 RCE and remarks are acknowledged. However, even as a result of applicants new amendment to claims, the applicants' instant claims are now rejected over the new grounds of rejection:

35 USC 103:

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,4-9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pennell '285 or Elsner '735 alone or in view of Clark '902 and Yamazaki (JP 410194800 A or JP 410192896 A).

Pennell and Elsner teach the same process as stated in previous office actions and therein it is explained how these reference meet applicants' instant claims. Applicants have now presented an amendment and subsequent arguments that the prior art does not teach *"liberating ammonia from the organic waste/mineral by-product mixture during burning of the fuel to reduce NOx emissions from exhaust gases."* In response, the examiner has now added the two Yamazaki Japanese patent abstract references to provide this missing teaching. Yamazaki '800 and 896 both teach using an organic sludge (organic waste) that when burned releases ammonia which can reduce NOx in the exhaust gases of the cement kiln (see abstracts).

It is noted that this would be expected in the process itself since the process of Elsner and Pennell do lead to ammonia vapor/gas from heating/burning leading to

Art Unit: 1793

automatic reduction of cement kiln exhaust gases. However, the Yamazaki references teach that this is exactly what is going on in this process for making cement clinker from waste materials such as sludges which give off ammonia from the burning steps.

Also, Uchikawa has been cited of interest to show that it is known and conventional in the art to add ammonia to reduce NO_x gases from combustion exhaust gas. This has not been used in the rejection because ammonia is added separately versus Yamazaki which teaches the ammonia is already in the process from burning the nitrogenous containing organic wastes such as their sludges.

It is also noted that though Hoffis '875 A1 is not part of the rejection above he also teaches that manure organic waste releases ammonia during burning a gas or vapor which then reacts with exhaust gas to reduce NO_x (see [0012]).

The applicants also again argue Clark individually without addressing the specific purpose already provided for the combination. Of Course Clark does not teach the new limitation regarding NO_x reduction because that is not why it was utilized by the examiner in the combination rejection. Rather, Clark has been used to meet the applicants' claim limitations that coke, coal, oil, and gas are conventional fuels used in rotary kilns for making cement clinker. No other teaching has been taken from Clark.

Finally control of solids content for slurries prior to submission of the sludge waste slurry, for example, as a raw material for cement clinker making, is obvious to one of ordinary skill in the art. One of ordinary skill in the art would use conventional methods to control solids content (dewatering) See MPEP 2144 regarding conventional in the art. Nevertheless, it is also understood that the lower solids content (thus higher

Art Unit: 1793

water/liquid content) is more energy intensive because it requires more heating in the rotary kiln to burn off/dry water before burning.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Paul Marcantoni/
Primary Examiner, Art Unit 1793